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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,813	02/22/2002	Zuyin Yang	021238-476	9865

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EXAMINER

WALLS, DIONNE A

ART UNIT	PAPER NUMBER
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1731

DATE MAILED: 04/11/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/079,813

Applicant(s)

YANG ET AL.

Examiner

Dionne A. Walls

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 10-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 16 and 17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-9 and 16-17, drawn to a process of making flavored carbon particles, cigarette filter and cigarette, classified in class 131, subclass 94.
 - II. Claims 10-15, drawn to a cigarette, classified in class 131, subclass 335.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the cigarette product, as claimed, can be made by another materially different process, such as one wherein the carbon particles are mixed with a flavorant solution in an agitator, and then the carbon is separated by filtration, washed, dried and added to a cigarette filter which is attached to a tobacco rod to form a cigarette.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.
5. During a telephone conversation with Mr. Peter Skiff on March 25th, 2003 a provisional election was made with traverse to prosecute Invention I, claims 1-9, 16-17. Affirmation of this election must be made by applicant in replying to this Office action. Claims 10-14 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.
6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
8. Claims 1-2, 5-7 and 16-17 are rejected under 35 U.S.C. 103(a) as being obvious over Jupe et al (US. Pat. App. Pub. 2002/0166563).

The applied reference has a common assignee/inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Jupe et al discloses flavored activated carbon particles (10-70 mesh) incorporated into a cigarette filter which is attached to a tobacco rod to form a cigarette. Flavor (obviously liquid, since this form of flavorant is conventional in the tobacco art) is added to the carbon by spraying a particular flavored substance upon a batch of activated carbon in a fluidized bed with nitrogen as the fluidizing agent. (see para. 34 and 35).

Regarding claim 2, one having ordinary skill in the art would have been motivated to add the claimed amount of flavorant to the carbon particles in order that an effective amount can be released into the mainstream smoke upon the use of the cigarette.

9. Claims 1-3, 7, 9 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Keritsis (US. Pat. No. 5,133,367) in view of Hu et al (US. Pat. App. Pub. 2002/0110689).

Keritsis discloses, in its "Background of Invention", that flavorants deposited on activated carbon particles in the filter section of a smoking article are well-known in the tobacco art (see col. 1, lines 33-37). Keritsis may not specifically articulate that the flavorants deposited (and, hence, subsequently absorbed/adsorbed) on the carbon particles are done via introducing fluidizing gas, i.e. nitrogen, into a vessel to fluidize said particles, and then introducing the flavorant to the particles. However, depositing (which is synonymous with "coating") material onto activated carbon particles utilizing a continuous or periodic (corresponding to the claimed "batch") process, fluidized bed coater is well-known, and is even disclosed in Hu et al (see pages 2-3). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to utilize fluidized bed coating to adsorb flavorant onto carbon particles which will be incorporated into a filter for a cigarette, since depositing material on carbon particles via fluidization is known in many arts.

Regarding claim 2, one having ordinary skill in the art would have been motivated to add the claimed amount of flavorant to the carbon particles in order that

an effective amount can be released into the mainstream smoke upon the use of the cigarette.

Regarding claim 3, in conventional fluidized bed coater processes, elevated temps or other forms of energy causes drying or curing of the coating material on the particles. This language suggests that it is not necessary to *heat* the carbon particles, in order to effectuate a drying or curing of said coating material. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to practice the fluidization process without the application of elevated temperatures so as to heat the particles, but with the application of other forms of energy, instead, to effectuate the drying/setting of the flavorant on the carbon particles.

Regarding claim 9, while there is no explicit articulation regarding the amount of time of the fluidization process, one having ordinary skill would have arrived at the claimed amount of time after routine experimentation to optimize the time length required to ensure effective flavorant adsorption into the carbon particles.

10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Keritsis (US. Pat. No. 5,133,367) in view of Hu et al (US. Pat. App. Pub. 2002/0110689), further in view of Wurster et al (US. Pat. No. 3,241,520).

While Keritsis modified by Hu et al may not specifically articulate that the process is carried out in a vessel containing a plurality of compartments through which the activated carbon particles pass sequentially while in the fluidized state, Wurster et al discloses a fluidized bed coater having such features (see fig. 13). It would have been obvious to one having ordinary skill in the art at the time of the invention to utilize a

vessel having these compartments in order to ensure uniform distribution of the coating material on the discrete particles since all particles follow essentially the same path through the apparatus, as taught in Wurster et al (see col. 3, lines 56-58).

11. Claims 5-6 are rejected over Keritsis (US. Pat. No. 5,133,367) in view of Hu et al (US. Pat. App. Pub. 2002/0110689), further in view of Urbanic (US. Pat. No. 3,889,691).

Keritsis modified by Hu et al may not specifically state the size of the carbon particles of its invention; however, it's well-known that activated carbon particles available on the market, and used in cigarette filters, typically have the claimed mesh/mm size, and such size (i.e. 12-40 mesh) is even disclosed in the Urbanic reference which discloses a tobacco filter containing activated carbon (see col. 3, lines 15-19). It would have been obvious to one having ordinary skill in the art at the time of the invention to utilize activated carbon particles having the claimed mesh size in the process of Keritsis and Hu et al since carbon having said size, and being utilized in cigarette filters, is known in the tobacco art.

12. Claim 8 is rejected over Keritsis (US. Pat. No. 5,133,367) in view of Hu et al (US. Pat. App. Pub. 2002/0110689), further in view of Jones ("Controlling Particle size and Release Properties").

Keritsis modified by Hu et al may not specifically state that the vessel includes a gas exhaust conduit separated by from the interior of the vessel by a filter, which also includes a periodic blow-back of gas through the filter to clean activated carbon particles from the filter; however, Jones discloses a fluidized bed coater having such a filter (see

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pages 159 and 161). It would have been obvious to one having ordinary skill in the art at the time of the invention to utilize a vessel having such a filter in order to retain collected particles that accumulate from the fluidized air, and to prevent such particles from entering/clogging other parts of the vessel. Further, it would have been obvious to one having ordinary skill in the art at the time of the invention to include a gas exhaust conduit on the top/other side of the filter in order to allow a recycling of gas, blown up through the vessel, back to the vessel gas inlet, for environmental and economic reasons. Lastly, filter blow-back techniques are well-known in many arts. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to include periodic blowback of gas through the filter in order to periodically clean filter surfaces.

Conclusion

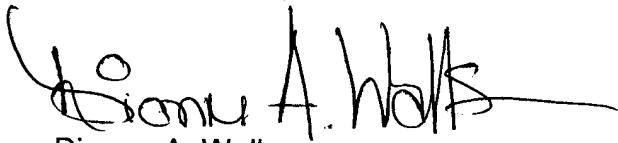
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dionne A. Walls whose telephone number is (703) 305-0933. The examiner can normally be reached on Mon-Fri, 7AM - 4:30PM (Every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven P. Griffin can be reached on (703) 308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

A handwritten signature in black ink, appearing to read "Dionne A. Walls". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Dionne A. Walls
April 9, 2003